NORTH DAKOTA DEPARTMENT OF HEALTH
Environmental Health Section

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April 29, 2002

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To Dick Long	From ~~Terry~~ O'Clair	
Co./Dept. EPA - Region 8	Co.	
Phone #	Phone #	
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Richard R. Long, Director
Air and Radiation Program
EPA Region 8, Mailcode 8P-AR
999 18th St, Suite 300
Denver, CO 80202

Dear ~~Mr Long~~: Dick

In a letter dated March 5, 2002 you requested comment on EPA's draft dispersion modeling analysis of PSD Class I area increment consumption in North Dakota and eastern Montana. The letter specifically requested technical comments in two areas, the first relating to characterization of sulfur dioxide emissions and the second relating to critical user settings in the Calpuff model. The purpose of this letter is to specifically offer comments in regard to those two issues; however, as you are aware, the Department will hold a hearing beginning on May 6, 2002, that will seek input on these same issues as well as others in regard to PSD.

1. In EPA's analysis, a determination was made that Minnkota Unit 2 was not at "normal operations" at the minor source baseline date. The Department agrees. Such a determination should be made for all other sources for the two year period selected for determining baseline emission rates. The reviewing agency bears the burden to show that allowable emission rates do not equal actual emission rates. The preamble to the 1980 PSD rules (45 FR 52718, August 7, 1980) states "The presumption that federally enforceable source specific requirements correctly reflect actual operating conditions should be rejected by EPA, or a State, if reliable evidence is available which shows that actual emissions differ from the level established in the SIP or permit." It is the Department's opinion that until you establish what is "normal operations" for a facility, you cannot effectively rebut the presumption that actual emissions equal allowable emissions. Further, to have apples to apples comparisons, methods of calculating baseline concentration and increment consumption must be consistent.

2. During the 1999-2000 time period, the Great Plains Synfuels Plant (DGC), Little Knife Plant (Petro Hunt) and Grasslands Plant (Bear Paw Energy) were operating at emission levels

substantially below their allowable levels. We believe the use of allowable emissions for these facilities overstate their contributions to concentrations in Class I areas. In addition, the question of proper treatment of the emissions for sources that received certifications of no adverse impact, comes in to play. Both the Little Knife Gas processing plant and DGC received such certifications.

3. The analysis should include oil and gas emissions during baseline and for the current period. Some fields have discontinued production since the baseline, others have been developed. Gas flared during the early days were later captured and routed to gas processing plants. All such activity should be considered in accurately assessing baseline concentrations and increment consumption.

4. Regarding the calculation of baseline emission rates, we have the following comments:

   a. The method used by EPA to calculate the peak 24-hr emission rate during the baseline period was a ratio of the 90th percentile peak-to-mean for the current year (99-00) times the baseline annual average emission rate. This method ignores any change in the ratio of the peak sulfur content to average sulfur content from the baseline period to the current years. For some plants, there is a substantial difference in this ratio (peak to average sulfur) for the two time periods that could affect the baseline emission rate.

   b. The analysis for peak 24-hr baseline emission rates does not consider any differences in peak production rates between the baseline period and the current years. This could affect the baseline emission rate and requires a determination of whether the sources were operating normally (normal operations) during the baseline period.

   c. The method used to calculate the baseline 24-hr emission rates, uses a combination of AP-42 emission factors and CEM data. The annual emission rates for the baseline period is based on the average AP-42 emission factor (30S) while the current years emission rates were based on CEM data. This is somewhat of an apples-to-oranges comparison for calculating baseline 24-hr emission rates since the CEM's account for varying characteristics of the coal (i.e., coal ash sodium content) while the average emission factor does not. Again, EPA is making an assumption of similar coal quality in the baseline period and current years. It should be noted that two

baseline power plants have switched the source of their coal since the baseline date, which brings in to question whether such an assumption is valid.

5. The method used by EPA for calculating the emission rate for increment expanding sources (annual average emission rate) is not consistent with the (90th percentile) method used for other baseline sources. Again, a determination of normal operations for these sources must be made in order to accurately assess the baseline emission rates. The characterization of the baseline emission rate should be consistent for all sources.

6. Emissions associated with the Lignite Gas Plant and the Mandan Refinery should be included in the baseline and current emission source inventories.

7. The emission rate for the Tioga Gas Plant should reflect actual, rather than allowable emissions.

We look forward to your participation at the May 6, 2002 hearing.

Sincerely,

Terry L. O'Clair, P.E.
Director
Division of Air Quality

TLO:saj

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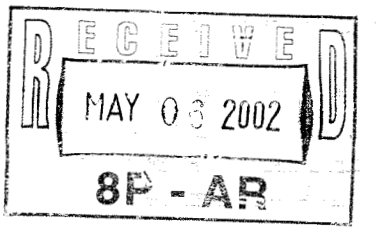

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